NEUROPSYCHOLOGIA

Volume 25, 1987

EDITOR-IN-CHIEF
M. JEANNEROD, *Lyon*

BOARD OF EDITORS
G. BERLUCCHI, *Verona*
S. CORKIN, *Cambridge, MA*
A. M. GALABURDA, *Boston*
M. JEEVES, *St. Andrews*
B. MILNER, *Montreal*
K. POECK, *Aachen*
K. H. PRIBRAM, *Stanford, CA*

Pergamon Press

OXFORD . NEW YORK . BEIJING . FRANKFURT
SÃO PAULO . SYDNEY . TOKYO . TORONTO

NEUROPSYCHOLOGIA

Editor-in-Chief

Prof. M. JEANNEROD, Laboratoire de Neuropsychologie Expérimentale, U. 94 de l'I.N.S.E.R.M., 16, avenue du Doyen Lépine 69500 Bron, France.

Board of Editors

Prof. G. BERLUCCHI, Istituto di Fisiologia Umana, Strada Le Grazie, Borgo Roma, I-37134 Verona, Italy.
Prof. S. CORKIN, Department of Brain and Cognitive Sciences, E10-003A, Massachusetts Institute of Technology, Cambridge, MA 02139, U.S.A.
Prof. A. M. GALABURDA, Neurological Unit, Beth Israel Hospital, 330 Brookline Avenue, Boston, MA 02215, U.S.A.
Prof. M. JEEVES, Department of Psychology, University of St. Andrews, St. Andrews, Fife, KY16 9JU, U.K.
Prof. B. MILNER, Montreal Neurological Institute, 3801 University Street, Montreal H3A 2B4, Quebec, Canada.
Prof. Dr. K. POECK, Abteilung Neurologie der Medizinischen Fakultät an der Rheinisch-Westfälische Technische Hochschule, Goethestrasse 27/29, Aachen 51, W. Germany.
Prof. K. H. PRIBRAM, Jordan Hall, Stanford University, Stanford, CA 94305, U.S.A.

Board of Associate Editors

J. BANCAUD, Paris
J. L. BRADSHAW, Clayton
M. P. BRYDEN, Waterloo
C. J. COLBOURN, Southampton
M. C. CORBALLIS, Auckland
J. DELACOUR, Paris
J. E. DESMEDT, Brussels
G. ETTLINGER, Bielefeld
M. E. GOLDBERG, Bethesda, MD
M. P. HAGGARD, Nottingham
G. HORN, Cambridge
R. L. ISAACSON, Binghamton
M. KUTAS, San Diego, CA
J. C. MARSHALL, Oxford
C. A. MARZI, Padova
A. D. MILNER, St. Andrews
M. MISHKIN, Bethesda, MD
J. MORAIS, Brussels
M. MOSCOVITCH, Toronto
M. POSNER, Eugene, OR
G. RATCLIFF, Pittsburgh
G. RIZZOLATTI, Parma
R. W. SPERRY, Pasadena, CA
L. R. SQUIRE, San Diego
C. TREVARTHEN, Edinburgh
L. WEISKRANTZ, Oxford
K. WILLMES, Aachen
E. ZAIDEL, Los Angeles, CA
R. J. ZATORRE, Montréal
E. ZURIF, Boston, MA

Published seven times per year

Publishing & Advertising Offices

Pergamon Journals Limited, Headington Hill Hall, Oxford OX3 0BW, U.K.

Annual Subscription Rates 1988 (including postage and insurance)

Subscription enquiries from customers in North America should be sent to: Pergamon Journals Inc., Maxwell House, Fairview Park, Elmsford, NY 10523, U.S.A., and from the remainder of the world to: Pergamon Journals Ltd., Headington Hill Hall, Oxford OX3 0BW, U.K.

Annual institutional subscription rate (1988) DM 1035.00. Two-year institutional rate (1988/89) DM 1966.50. Personal subscription rate for those whose library subscribes at the regular rate (1988) DM 133.00. Prices are subject to change without notice.

Microform Subscriptions and Back Issues

Back issues of all previously published volumes are available in the regular editions and on microfilm and microfiche. Current subscriptions are available on microfiche simultaneously with the paper edition and on microfilm on completion of the annual index at the end of the subscription year.

Copyright © 1987 Pergamon Journals Ltd.

It is a condition of publication that manuscripts submitted to this journal have not been published and will not be simultaneously submitted or published elsewhere. By submitting a manuscript, the authors agree that the copyright for their article is transferred to the publisher if and when the article is accepted for publication. However assignment of copyright is not required from authors who work for organizations which do not permit such assignment. The copyright covers the exclusive rights to reproduce and distribute the article, including reprints, photographic reproductions, microform or any other reproductions of a similar nature and translations. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, magnetic tape, mechanical, photocopying, recording or otherwise, without permission in writing from the copyright holder.

Photocopying information for users in the U.S.A. *The Item-fee Code for this publication indicates that authorization to photocopy items for internal or personal use is* granted by the copyright holder for libraries and other users registered with the Copyright Clearance Center (CCC) Transactional Reporting Service, provided the stated fee for copying beyond that permitted by Section 107 or 108 of the United States Copyright Law is paid. The appropriate remittance of $3.00 per copy per article is paid directly to the Copyright Clearance Center Inc., 27 Congress Street, Salem, MA 01970.

Permission for other use. The copyright owner's consent does not extend to copying for general distribution, for promotion, for creating new works, or for resale. Specific written permission must be obtained from the publisher for such copying.

The Item-Fee Code for this publication is: 0028-3932/87 $3.00 + 0.00

Volume 25, 1987

SPECIAL ISSUE: SELECTIVE VISUAL ATTENTION

Number 1a

Editorial

G. BERLUCCHI and G. RIZZOLATTI — 1 — Selective visual attention

H. C. HUGHES and L. D. ZIMBA — 5 — Natural boundaries for the spatial spread of directed visual attention

L. DE GONZAGA GAWRYSZEWSKI, L. RIGGIO, G. RIZZOLATTI and C. UMILTÀ — 19 — Movements of attention in the three spatial dimensions and the meaning of "neutral" cues

G. RIZZOLATTI, L. RIGGIO, I. DASCOLA and C. UMILTÀ — 31 — Reorienting attention across the horizontal and vertical meridians: evidence in favor of a premotor theory of attention

E. A. MAYLOR and R. HOCKEY — 41 — Effects of repetition on the facilitatory and inhibitory components of orienting in visual space

G. TASSINARI, S. AGLIOTI, L. CHELAZZI, C. A. MARZI and G. BERLUCCHI — 55 — Distribution in the visual field of the costs of voluntarily allocated attention and of the inhibitory after-effects of covert orienting

B. FISCHER and B. BREITMEYER — 73 — Mechanisms of visual attention revealed by saccadic eye movements

M. D. RUGG, A. D. MILNER, C. R. LINES and R. PHALP — 85 — Modulation of visual event-related potentials by spatial and non-spatial visual selective attention

S. E. PETERSEN, D. L. ROBINSON, and J. D. MORRIS — 97 — Contributions of the pulvinar to visual spatial attention

M. E. GOLDBERG and M. A. SEGRAVES — 107 — Visuospatial and motor attention in the monkey

M. S. GAZZANIGA — 119 — Perceptual and attentional processes following callosal section in humans

M. I. POSNER, J. A. WALKER, F. A. FRIEDRICH and R. D. RAFAL — 135 — How do the parietal lobes direct covert attention?

Announcement — 147 — Fondation Fyssen 1987–1988 Fellowships

Number 1b

F. NEWCOMBE, G. RATCLIFF and H. DAMASIO — 149 — Dissociable visual and spatial impairments following right posterior cerebral lesions: clinical, neuropsychological and anatomical evidence

M. GROSSMAN and S. HABERMAN — 163 — The detection of errors in sentences after right hemisphere brain damage

D. CAPLAN — 173 — Discrimination of normal and aphasic subjects on a test of syntactic comprehension

A. E. MERRIAM and E. B. GARDNER — 185 — Corpus callosum function in schizophrenia: a neuropsychological assessment of interhemispheric information processing

L. R. SQUIRE, A. P. SHIMAMURA and P. GRAF — 195 — Strength and duration of priming effects in normal subjects and amnesic patients

A. R. MAYES, A. PICKERING and A. FAIRBAIRN — 211 — Amnesic sensitivity to proactive interference: its relationship to priming and the causes of amnesia

J. Vilkki — 221 — Incidental and deliberate memory for words and faces after focal cerebral lesions

A. R. Lecours, J. Mehler, M. A. Parente, A. Caldeira, L. Cary, M. J. Castro, F. Dehaut, R. Delgado, J. Gurd, D. de Fraga Karmann, R. Jakubovitz, Z. Osorio, L. S. Cabral and A. M. S. Junqueira — 231 — Illiteracy and brain damage—1. Aphasia testing in culturally contrasted populations (control subjects)

M. A. Payne — 247 — Impact of cultural pressures on self-reports of actual and approved hand use

K. Smith and P. Griffiths — 259 — Defective lateralized attention for non-verbal sounds in developmental dyslexia

S. C. Schachter, B. J. Ransil and N. Geschwind — 269 — Associations of handedness with hair color and learning disabilities

Notes

C. Villardita — 277 — Verbal memory and semantic clustering in right brain-damaged patients

S. F. Cappa, G. Cavallotti and L. A. Vignolo — 281 — Jargonagraphia: clinical and neuropsychological correlates

I. Trope, B. Fishman, R. C. Gur, N. M. Sussman and R. E. Gur — 287 — Contralateral and ipsilateral control of fingers following callosotomy

D. Fein — 293 — Systematic misidentification of toes in normal adults

O. Koenig — 295 — Dichhaptic recognition of textures in normal adults

J. Polich and T. Burns — 299 — P300 from identical twins

C. W. Ponton — 305 — Enhanced articulatory speed in ambidexters

Books Received — 313

Announcements — 315

Number 2

D. Bowers, H. B. Coslett, R. M. Bauer, L. J. Speedie and K. M. Heilman — 317 — Comprehension of emotional prosody following unilateral hemispheric lesions: processing defect versus distraction defect

M. Sugishita and M. Yoshioka — 329 — Visual processes in a hemialexic patient with posterior callosal section

A. L. Ostergaard — 341 — Episodic, semantic and procedural memory in a case of amnesia at an early age

A. J. Wilkins, T. Shallice and R. McCarthy — 359 — Frontal lesions and sustained attention

A. Searleman and A. K. Fugagli — 367 — Suspected autoimmune disorders and left-handedness: evidence from individuals with diabetes, Crohn's disease and ulcerative colitis

M. E. Wolf and M. A. Goodale — 375 — Oral asymmetries during verbal and non-verbal movements of the mouth

C. Michimata and J. B. Hellige — 397 — Effects of blurring and stimulus size on the lateralized processing of nonverbal stimuli

S. L. Castro and J. Morais — 409 — Ear differences in illiterates

E. Drews — 419 — Qualitatively different organizational structures of lexical knowledge in the left and right hemisphere

M. Eals — 429 — Asymmetric processing in perception of apparent movement

J. A. Altman, A. S. Rosenblum and V. G. Lvova — 435 — Lateralization of a moving auditory image in patients with focal damage of the brain hemispheres

Notes

A. Kashiwagi, T. Kashiwagi and T. Hasegawa — 443 — Improvement of deficits in mnemonic rhyme for multiplication in Japanese aphasics

L. E. Cornelisse and J. B. Kelly — 449 — The effect of cerebrovascular accident on the ability to localize sounds under conditions of the precedence effect

K. Ikeda — 453 — Lateralized interference effects of concurrent verbal tasks on sequential finger tapping

Book Review

A. Berti — 457 — **Studies in Neuropsychology, Selected Papers of Arthur Benton.** Edited by L. Costa and O. Spreen.

Books Received — 459

Number 3

D. M. Freed, S. Corkin and N. J. Cohen — 461 — Forgetting in H.M.: a second look

G. Goldenberg, I. Podreka, M. Steiner and K. Willmes — 473 — Patterns of regional cerebral blood flow related to memorizing of high and low imagery words—an emission computer tomography study

D. W. Zaidel — 487 — Hemispheric asymmetry in memory for pictorial semantics in normal subjects

M. P. McAndrews, E. L. Glisky and D. L. Schacter — 497 — When priming persists: long-lasting implicit memory for a single episode in amnesic patients

M. Hiscock and M. Mackay — 507 — A signal detection procedure eliminates priming biases in dichotic listening

B. T. Woods — 519 — Impaired speech shadowing after early lesions of either hemisphere

J. R. Howell and M. P. Bryden — 527 — The effects of word orientation and imageability on visual half-field presentations with a lexical decision task

C. Chiarello and S. Nuding — 539 — Visual field effects for processing content and function words

J. M. Stapleton, E. Halgren and K. A. Moreno — 549 — Endogenous potentials after anterior temporal lobectomy

T. J. Simon and H. M. Sussman — 559 — The dual task paradigm: speech dominance or manual dominance?

M.-E. Pipe — 571 — Pathological left-handedness: is it familial?

J. P. Chapman, L. J. Chapman and J. J. Allen — 579 — The measurement of foot preference

Notes

R. S. Dean, G. Rattan and M.-S. Hua — 585 — Patterns of lateral preference: an American–Chinese comparison

K. Yoshizaki and T. Hatta — 589 — Shift of visual field advantage by learning experience of foreign words

Book Reviews

P. Winn — 593 — Depression: A Psychobiological Synthesis. Paul Willner

P. Winn — 594 — Animal Models in Psychopathology. Edited by Nigel W. Bond

A. L. Benabid — 594 — Neurosurgical Giants: Feet of Clay and Iron. Edited by Paul C. Bucy

Books Received — 597

Appreciation of Reviewers — 599

Number 4

S. de Schonen and I. Bry — 601 — Interhemispheric communication of visual learning: a developmental study in 3–6-month old infants

M. Eglin — 613 — Interference and priming within and across visual fields in a lexical decision task

P. E. Tressoldi — 625 — Visual hemispace differences reflect hemisphere asymmetries

R. Efron, E. W. Yund and D. R. Nichols — 637 — Scanning the visual field without eye movements—a sex difference

I. Peretz and J. Morais — 645 — Analytic processing in the classification of melodies as same or different

R. P. Kesner and T. Holbrook — 653 — Dissociation of item and order spatial memory in rats following medial prefrontal cortex lesions

J. Smith — 665 — Left-handedness: its association with allergic disease

Notes

S. Ishiai, T. Furukawa and H. Tsukagoshi — 675 — Eye-fixation patterns in homonymous hemianopia and unilateral spatial neglect

H. L. Bennett, R. L. Delmonico and C. F. Bond, Jr — 681 — Expressive and perceptual asymmetries of the resting face

J. Lavergne and D. Kimura — 689 — Hand movement asymmetry during speech: no effect of speaking topic

D. J. Scarisbrick, J. R. Tweedy, and G. Kuslansky — 695 — Hand preference and performance effects on line bisection

H. S. Kirshner, P. F. Casey, M. P. Kelly and W. G. Webb — 701 — Anomia in cerebral diseases

R. W. Frick — 707 — A dissociation of conscious visual imagery and visual short-term memory

P. D. Blanton and W. D. Gouvier — 713 — Sex differences in visual information processing following right cerebrovascular accidents

W. G. Willis and L. D. Goodwin — 719 — An alternative to interference indexes in neuropsychological time-sharing research

K. WILLMES and H. RATAJCZAK — 725 The design and application of a data- and methodbase system for the Aachen Aphasia Test

J. L. BRADSHAW, G. NATHAN, N. C. NETTLETON, L. WILSON and J. PIERSON — 735 Why is there a left side underestimation in rod bisection?

Obituary
O.-J. GRÜSSER — 739 Richard Jung (1911–1986)

Book Reviews
J.-P. JOSEPH — 743 *The Frontal Lobes Revisited.* Edited by E. Perecman

P. STOERIG — 744 *Relevance. Communication and Cognition.* By Dan Sperber and Deirdre Wilson

Number 5

E. STRAUSS, W. H. GADDES and J. WADA — 747 Performance on a free-recall verbal dichotic listening task and cerebral dominance determined by the carotid amytal test

H. J. HANNAY, J. C. FALGOUT, D. A. LELI, C. R. KATHOLI, J. H. HALSEY, JR and E. L. WILLS — 755 Focal right temporo-occipital blood flow changes associated with judgment of line orientation

D. BREITLING, W. GUENTHER and P. RONDOT — 765 Auditory perception of music measured by brain electrical activity mapping

S. CAPPA, R. STERZI, G. VALLAR and E. BISIACH — 775 Remission of hemineglect and anosognosia during vestibular stimulation

K. YORK HAALAND, D. L. HARRINGTON and R. YEO — 783 The effects of task complexity on motor performance in left and right CVA patients

M. KRICKL, U. POSER and H. J. MARKOWITSCH — 795 Interactions between damaged brain hemisphere and mode of presentation on the recognition of faces and figures

C. L. GRADY, J. V. HAXBY, B. HORWITZ, G. BERG and S. I. RAPOPORT — 807 Neuropsychological and cerebral metabolic function in early vs late onset dementia of the Alzheimer type

R. HARTER KRAFT, T. C. HSIA, T. ROBERTS and A. HALLUM — 817 Reading comprehension performance and laterality: evidence for concurrent validity of dichotic, dichhaptic and EEG laterality measures

D. VAN LANCKER and J. KREIMAN — 829 Voice discrimination and recognition are separate abilities

Notes
H. LEMPERT — 835 Effect of imaging sentences on concurrent unimanual performance

H. E. ROSS and P. ROCHE — 841 Sex, handedness and weight discrimination

W. G. WEBSTER — 845 Rapid letter transcription performance by stutterers

Book Reviews
J. L. BRADSHAW — 849 **The Brain Code: Mechanisms of Information Transfer and the Role of the Corpus Callosum.** By N. D. COOK

P. M. LAVOREL — 850 **Agrammatism.** Edited by M.-L. KEAN

Number 6

	i	Publishers Announcement
A. M. Galaburda, J. Corsiglia, G. D. Rosen and G. F. Sherman	853	Planum temporale asymmetry, reappraisal since Geschwind and Levitsky
A. Ptito, M. Lassonde, F. Lepore and M. Ptito	869	Visual discrimination in hemispherectomized patients
J. P. Grigsby, M. B. Kemper and R. J. Hagerman	881	Developmental Gerstmann syndrome without aphasia in Fragile X syndrome
E. L. Glisky and D. L. Schacter	893	Acquisition of domain-specific knowledge in organic amnesia: training for computer-related work
E. Sieroff and F. Michel	907	Verbal visual extinction in right/left hemisphere lesion patients and the problem of lexical access
M. Panzeri, C. Semenza and B. Butterworth	919	Compensatory processes in the evolution of severe jargon aphasia
N. Brody, S. E. Goodman, E. Halm, S. Krinzman and M. M. Sebrechts	935	Lateralized affective priming of lateralized affectively valued target words
V. De Pascalis, F. S. Marucci, M. P. Penna and D. Labbrozzi	947	Event-related potentials in musically sophisticated and unsophisticated subjects: a study on hemispheric specialization
A. Grabowska	957	Visual field differences in the magnitude of the tilt after-effect
Notes		
J. Lindesay	965	Laterality shift in homosexual men
D. E. Humphrey and G. K. Humphrey	971	Sex differences in infant reaching
M. W. O'Boyle and E. J. Hoff	977	Gender and handedness differences in mirror-tracing random forms
R. Cohen, K. Gutbrod, E. Meier and P. Römer	983	Visual search processes in the Token Test performance of aphasics
S. Magnussen, T. Johnsen and I. Reinvang	989	Interaction between local and global visual orientation signals in subjects with unilateral brain lesions
I. Izquierdo	995	The effect of an exposure to novel and non-novel video taped material on retrieval in two memory tests
G. Dellatolas	999	Approche probabiliste de la préférence manuelle pathologique et de la latéralisation des fonctions du langage normal et pathologique
Book Reviews		
P. M. Lavorel	1007	*Psychophysiological Aspects of Reading and Learning*. Edited by V. M. Rentel, S. A. Corson and B. R. Dunn
P. M. Lavorel	1008	*Surface Dyslexia. Neuropsychological and Cognitive Studies of Phonological Reading*. By K. E. Patterson, J. C. Marshall and M. Coltheart
K. J. Stewart	1008	*The Chimpanzees of Gombe*. By J. Goodall

A. BERTI 1009 *Handbook of Clinical Neuropsychology*. Vol. 2. Edited by S. B. Filskov and T. J. Boll

i 1987 Volume Contents and Author Index